

SECTION V-2 - FM BROADCAST ENGINEERING DATA (Page 2)

4. Does the application propose to correct previous site coordinates?
If Yes, list old coordinates.

☐ Yes ☒ No

Latitude	0	'	"	Longitude	0	'	"
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5. Has the FAA been notified of the proposed construction?

☒ Yes ☐ No

If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Exhibit No.

5

Date November 5, 1992 Office where filed Central Regional Office

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

Landing Area	Distance (km)	Bearing (degrees True)
(a) <u>None</u>		
(b)		

7. (a) Elevation: (to the nearest meter)

(1) of site above mean sea level; 271 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 91 meters

(3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)] 362 meters

- (b) Height of radiation center: (to the nearest meter) H = Horizontal; V = Vertical

(1) above ground 83.5 meters (H)

83.5 meters (V)

(2) above mean sea level [(a)(1) + (b)(1)] 354.5 meters (H)

354.5 meters (V)

(3) above average terrain 100 meters (H)

100 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No.
6

9. Effective Radiated Power:

(a) ERP in the horizontal plane

3.0 kw (H) 3.0 kw (V)

(b) Is beam tilt proposed?

☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No.
NA

 kw (H) kw (V)

*Polarization

10. Is a directional antenna proposed?

☐ Yes ☒ No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.816, including plot(s) and tabulations of the relative field.

Exhibit No.
NA

11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.816(a) and (b)?

☒ Yes ☐ No

If No, attach as an Exhibit a request for waiver and justification therefor, including amounts and percentages of population and area that will not receive 3.16 mV/m service.

Exhibit No.
NA

12. Will the main studio be within the protected 3.16 mV/m field strength contour of this proposal?

☒ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1126.

Exhibit No.
NA

13. (a) Does the proposed facility satisfy the requirements of 47 C.F.R. Section 73.207?

☒ Yes ☐ No

(b) If the answer to (a) is No, does 47 C.F.R. Section 73.213 apply?

NA ☐ Yes ☐ No

(c) If the answer to (b) is Yes, attach as an Exhibit a justification, including a summary of previous waivers.

Exhibit No.
NA

(d) If the answer to (a) is No and the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose.

Exhibit No.
NA

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No.
NA

- (1) Protected and interfering contours, in all directions (360), for the proposed operation.
- (2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as the transmitter location.
- (3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
- (4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
- (5) The official title(s) of the map(s) used in the exhibit(s).

14. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference?

☐ Yes ☒ No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(e) and 73.318.)*

Exhibit No.
NA

15. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction V (D). The map must further clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No.
7

16. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.
8

Kansas City Sectional Aeronautical Chart

(a) the proposed transmitter location, and the radials along which profile graphs have been prepared;

(b) the 316 mV/m and 1 mV/m predicted contours; and

(c) the legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 259 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 1828.4 sq. km. Population 25,008

18. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.
NA

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

19. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313)*

Source of terrain data: *(check only one box below)*

☒ Linearly interpolated 90-second database ☐ 7.5 minute topographic map

(Source: Dataworld)

☐ Other *(briefly summarize)*

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 8 to 16 km (meters)	Predicted Distances	
		To the 3.18 mV/m contour (kilometers)	To the 1 mV/m contour (kilometers)
*			
0	91.8	12.9	23.3
45	122.9	15.0	26.5
90	99.0	13.4	24.1
135	76.5	11.9	21.3
180	107.7	14.0	25.1
225	126.2	15.2	26.8
270	81.0	12.2	21.9
315	95.0	13.1	23.6

*Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT.

20. Environmental Statement (See 47 C.F.R. Section 1.1301 et seq.)

Would a Commission grant of this application come within Section 1.1807 of the FCC Rules, such that it may have a significant environmental impact? ☐ Yes ☒ No

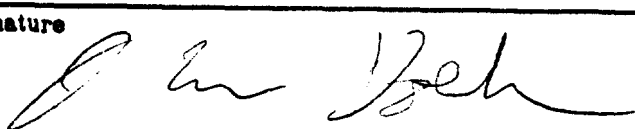
Categorically excluded as per CFR 1.1306 See Engineering Statement
If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No.
NA

If No, explain briefly why not.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name (Typed or Printed) J. Eric Hoehn	Relationship to Applicant (e.g., Consulting Engineer) Technical Director
Signature 	Address (Include ZIP Code) P.O. Box 7573 Columbia, MO 65205
Date November 5, 1992	Telephone No. (Include Area Code) (314) 474-0990

**ENGINEERING EXHIBIT
APPLICATION FOR FM CONSTRUCTION PERMIT**

NEW FM-CHANNEL 244A-BOURBON, MO.
LAKE BROADCASTING, INC.
3 K.W. H&V 100 METERS H.A.A.T.

Engineering Statement

This engineering exhibit of which this statement is part, has been prepared by J. Eric Hoehn in support of an application for a NEW FM Broadcast station construction permit at Bourbon, Missouri, which is being filed pursuant to the FIRST COME, FIRST SERVED PROVISION. Channel 244A is assigned to Bourbon, Missouri, at a site restricted reference point, selected by the FCC staff. Because this allotment was made as a result of petitions filed prior to October 2, 1989, applicants may avail themselves of the provisions of Section 73.213(C)(1) of the Commission's rules.

The filing window for use of Channel 244A at Bourbon, Missouri closed with NO applications filed for it's use.

Thus, this application is being filed under FCC Public Notice FCC-86-265, 36708, May 22, 1986, under FIRST COME, FIRST SERVED PROVISION. See Operation of F.C.F.S. FM Broadcast Application Process System, Paragraph 2.

It is proposed herein, to construct a new tower, install a new antenna and transmitter, which will operate on channel 244A with Effective Radiated Power of 3.0 KW H&V and antenna height above average terrain of 100 meters.

The construction proposed herein would not be subject to environmental processing in accordance with 47 CFR 1.1306. The Central Regional Office of the Federal Aviation Administration has been notified of the proposed construction. This application conforms with all applicable rules and regulations of the Federal Communications Commission.

Proposed Transmitting Location

The proposed transmitting facility will consist of a 2-bay antenna side-mounted on a tapered section, atop a uniform cross-section, guyed steel tower to be constructed 1.45 miles West of the Meramec River bridge on the Southwest side of Highway "N", Crawford County, Missouri.

The proposed tower location is located at the following geographic coordinates, which were scaled from the "Onondaga Cave", MO. U.S.G.S. 7-1/2 minute quadrangle map:

38 05' 22" North Latitude

91 10' 13" West Longitude

A topographic map showing the proposed transmitter location is included herein as Exhibit 7. Exhibit 6 is a sketch of the proposed antenna and supporting structure.

The transmitter site for Bourbon, Missouri was site restricted by the FCC staff in MM-Docket No. 89-74, RM 6440, RM-6772 in order to avoid a conflict with a rule-making to upgrade station KCMQ (FM) to Channel 244C3 at Columbia, Missouri.

KCMQ was granted a construction permit for use of Channel 244C3 at Columbia, Missouri (BPH-911021IF), which fully spaced the Bourbon, Missouri reference point, as well as the proposed site for use of Channel 244A that is specified in this application.

On September 1, 1992, Al Greenfield, d/b/a The Greenfield Group, Receiver, the present temporary licensee of KCMQ (FM), filed a minor-modification of construction permit seeking to modify the KCMQ construction permit, to allow the use of a short-spaced site 7.3 KM short-spaced to the Bourbon Channel 244A reference point.

KCMQ has requested processing pursuant to 47 CFR 73.215 for this short-spacing.

The site used in this application is at a greater distance from the most recent KCMQ proposal, than the reference point protected by KCMQ in it's 73.215 short-spaced application. Therefore, this application is adequately protected by the pending KCMQ application should it be granted.

Coverage Contours

The predicted coverage contours were calculated in accordance with the provisions of 47 CFR 73.313. No consideration was given to terrain roughness correction factors, as is consistent with current FCC policy.

The average elevations from 3 to 16 kilometers from the proposed site were obtained from the NGDC 30- second computer database. The standard eight radials evenly spaced at 45-degree intervals were used for determining the average elevations and the distance to the coverage contours. The antenna radiation center height above average terrain in the individual radial directions and the effective radiated power were used in conjunction with the F(50,50) curves of 47 CFR 73.333 to determine the distances to coverage contours. Exhibit 10 is a map showing the predicted coverage contours for the new FM Station.

As is shown on Exhibit 8, the 70 dBu median field strength contour will cover all of Bourbon, Missouri.

Environmental Considerations

The proposal is categorically excluded from environmental processing, as it meets all of the criteria for such an exclusion in 47 CFR 1.1306. The proposal does not involve construction at a site location specified under 47 CFR 1.1307(a) (1)-(5), nor is expected to employ high intensity lighting under 47 CFR 1.1307(a) (6) and the human exposure to radiofrequency radiation is predicted to be within the standards specified in 47 CFR 1.1307(b).

The proposed FM facilities were evaluated in terms of potential radiofrequency exposure at ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." Using the total of horizontally polarized and vertically polarized power, 6 kilowatts, and a two element FM transmitting antenna with the lowest element of the antenna approximately 98 meters above ground level, the radio-frequency field exposure on the ground in the vicinity of the tower will be well within the FCC guidelines. Applicant will erect fencing around the base of the tower, and appropriate signs will be posted to warn of potential RF hazards to the general public.

During times when work is scheduled on the tower, power will be decreased, or the station operation will be suspended to insure that OST Bulletin 65 guidelines are met for all employees and contractors.

INTERFERENCE STATEMENT

The 115 dBu "Blanketing" contour of the new FM would extend to 1.9 kilometers. Applicant recognizes its responsibility to resolve complaints of blanketing interference within this area as required by 47 CFR 73.318. Applicant also recognizes its responsibility to eliminate any objectionable interference to existing or authorized radio facilities or to receivers in use at the time of grant of this application.

DO NOT REMOVE CARBONS

Form Approved OMB No. 2120-0001



 U.S. Department of Transportation Federal Aviation Administration		NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION		Aeronautical Study Number	
1. Nature of Proposal A. Type <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration B. Class <input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Temporary (Duration _____ months) C. Work Schedule Dates Beginning <u>On FCC</u> End <u>approval</u>			2. Complete Description of Structure A. Include effective radiated power and assigned frequency of all existing, proposed or modified AM, FM, or TV broadcast stations utilizing this structure B. Include size and configuration of power transmission lines and their supporting towers in the vicinity of FAA facilities and public airports C. Include information showing site orientation, dimensions, and construction materials of the proposed structure A: 3KW H&V 96.7MHz B: None C: 300 foot steel guyed radio tower		
3A. Name and address of individual, company, corporation, etc. proposing the construction or alteration. (Number, Street, City, State and Zip Code) (314) 928-6569 area code Telephone Number Lake Broadcasting, Inc. 222 Indacom Drive St. Peters, MO. 63376			(if more space is required, continue on a separate sheet.)		
B. Name, address and telephone number of proponent's representative if different than 3 above.					
4. Location of Structure A. Coordinates * (To nearest second) 38° 05' 22.1" N 91° 10' 13.5" W B. Nearest City or Town, and State Bourbon, MO. C. Name of nearest airport, heliport, flightpark or seaplane base Sullivan Regional (1) Distance from structure to nearest point of nearest runway 6.0 Miles (2) Direction from structure to airport N.W. North			5. Height and Elevation (Complete to the nearest foot) A. Elevation of site above mean sea level 890 B. Height of Structure including all appurtenances and lighting (if any) above ground, or water if so situated 300 C. Overall height above mean sea level (A + B) 1190		
D. Description of location of site with respect to highways, streets, airports, prominent terrain features, existing structures, etc. Attach a U.S. Geological Survey quadrangle map or equivalent showing the relationship of construction site to nearest airport(s). (if more space is required, continue on a separate sheet of paper and attach to this notice.) * NAD-83 Co-ordinates 1.45 miles West of the Meramec River Bridge, on the Southwest side of Highway "N", Crawford County, MO.					
Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1101). Persons who knowingly and willingly violate the Notice requirements of Part 77 are subject to a fine (criminal penalty) of not more than \$500 for the first offense and not more than \$2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1472(a)).					
I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards if necessary.					
Date 11/5/92		Typed Name/Title of Person Filing Notice J. Eric Hoehn		Signature 	
FAA USE ONLY Supplemental Notice of Construction <input checked="" type="checkbox"/> At least 48 hours before construction begins <input type="checkbox"/> Within five days of construction beginning This determination shall be made by the FAA unless: (a) extended, revised or terminated by the issuing office (b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC prior to the above expiration date. In such case the determination expires on the date prescribed by the FCC for the permit construction, or on the date the FCC denies the application. NOTE: Request for extension of the effective period of this determination shall be delivered to the issuing office at least 15 days before the expiration date. If the structure is subject to the licensing authority of the Federal Communications Commission, it is the responsibility of the applicant to obtain the necessary FCC license before construction begins.					
Remarks:					
Issued in		Signature		Date	

EXHIBIT 6

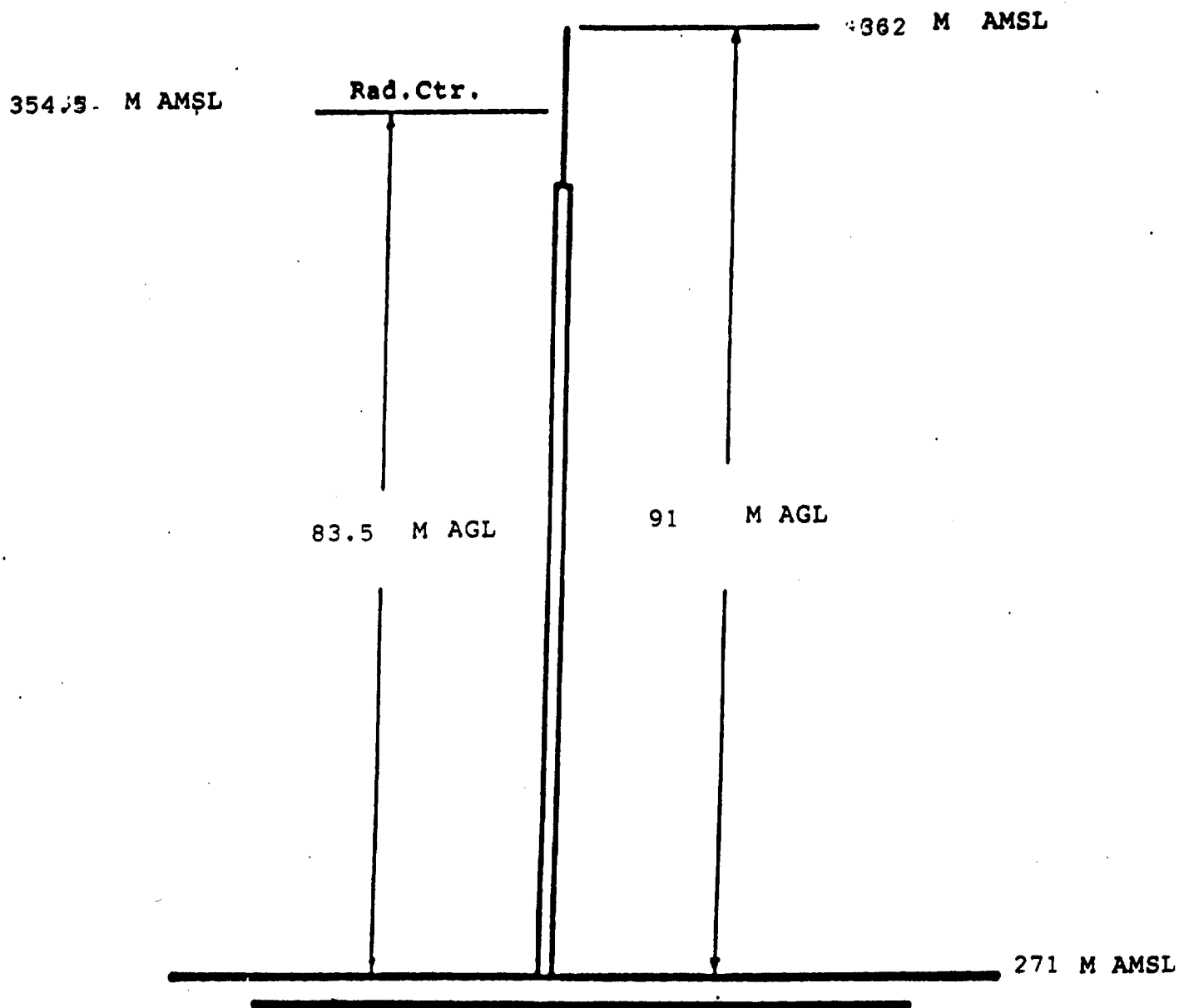
VERTICAL PLAN

Single, guyed steel tower supporting
FM Broadcast antenna for Ch. 244
96.7 Mhz 3.0 KWE.R.P.

SITE LOCATION

NL 38-05-22

WL 91-10-13



not to scale

guys not shown

NEW FM-CHANNEL 244A-BOURBON, MO.
LAKE BROADCASTING, INC.
3 K.W. H&V 100 METERS H.A.A.T.

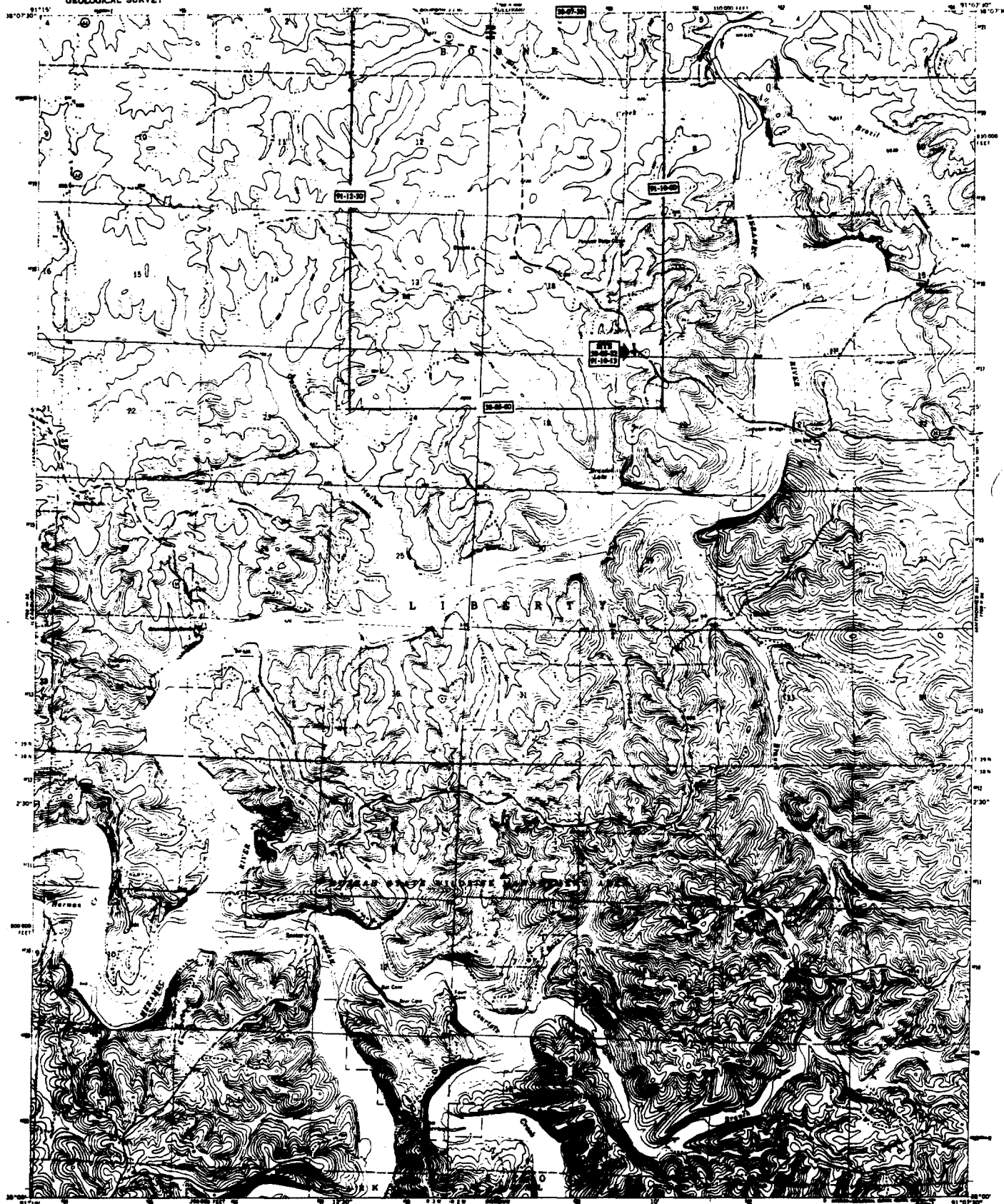
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EXHIBIT 7

STATE OF MISSOURI
GEOLOGICAL SURVEY AND WATER RESOURCES

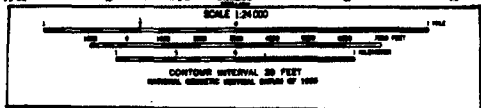
NEW FAULT-CONTROL, S.W. QUADRANT, MO.
LAKE BROADCASTING, INC.
3 E.W. HWY 100 MILES N.E.A.T.

ONONDAGA CAVE QUADRANGLE
MISSOURI-CRAWFORD CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
Scale 1:25,000



113417
50 28
52

Prepared, edited, and published by the Geological Survey
Controlled by 100% and 100%
Topographic to show features visible from aerial
photographs taken 1957. Field notes 1958
Publication prepared. 1957. Fourth American edition
1:25,000-scale map based on American reconnaissance system, most from
1:50,000-scale General Topographic Map series, zone 18, shown in blue
This map contains both indicated features and field notes which
generally coincide on aerial photographs. This information is contained
in the accompanying field notes and is not shown on the map
In preparation of the map, the following data were used:
Photorecognition 1958
No change in data or change in data
No change in data or change in data



ROAD CLASSIFICATION
Secondary highway, all weather, improved surface
hard surface, improved surface
Unimproved road, fair or dry
weather
State Road

ONONDAGA CAVE, MO.
Scale 1:25,000
1958-10-10-001
Scale 1:25,000

EXHIBIT 8

NEW FM-CHANNEL 244A-BOURBON, MO.
LAKE BROADCASTING, INC.
3 K.W. H&V 100 METERS H.A.A.T.

SITE
38-05-22
91-10-13

1.0 mv/m

3.16 mv/m

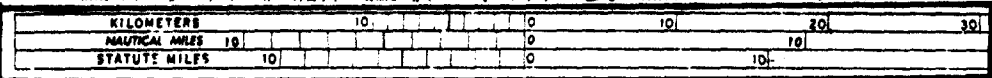
City Limits

SITE

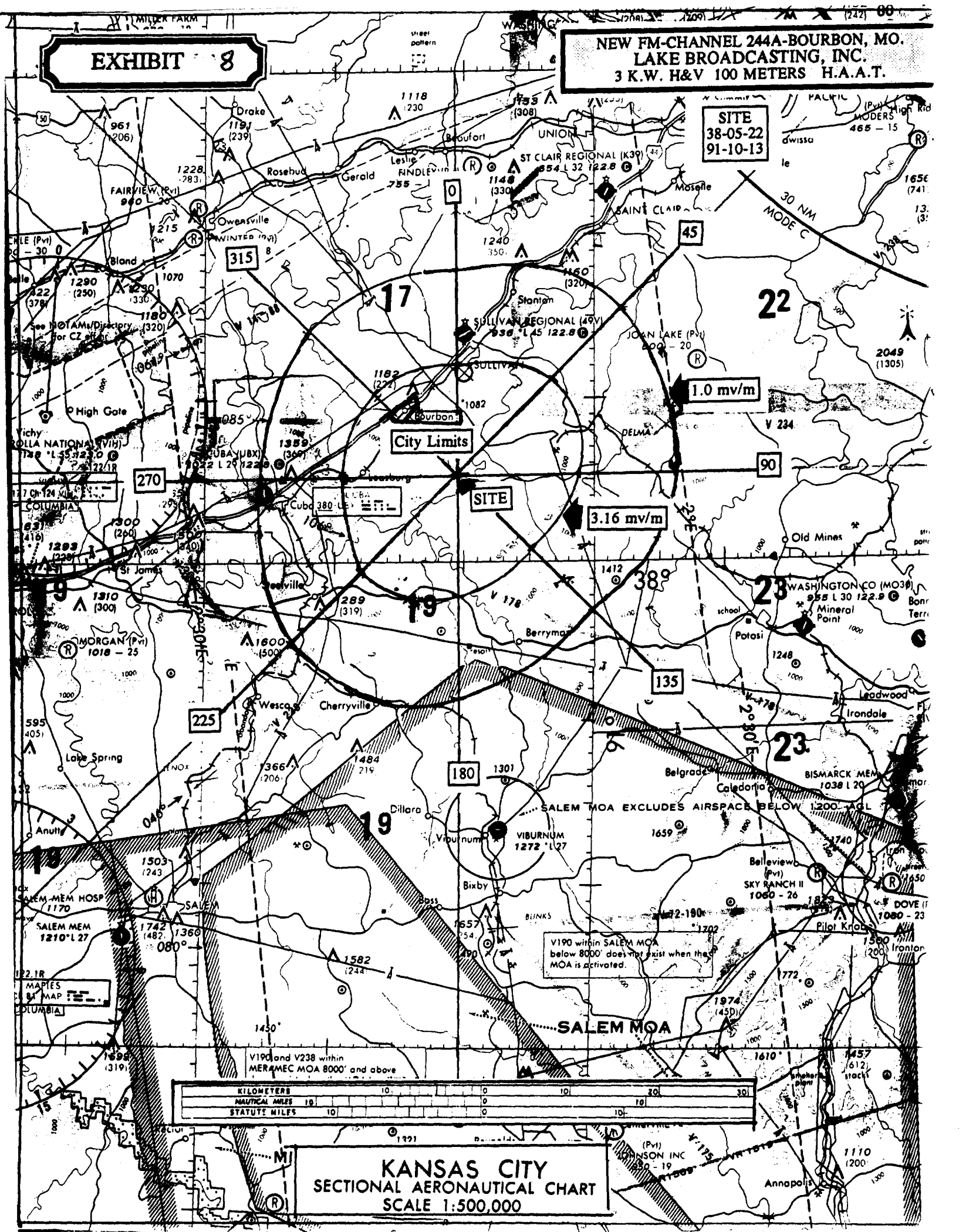
V190 within SALEM MOA
below 8000' does not exist when the
MOA is activated.

SALEM MOA

V190 and V238 within
MERAMEC MOA 8000' and above



KANSAS CITY
SECTIONAL AERONAUTICAL CHART
SCALE 1:500,000



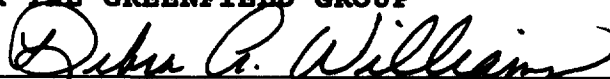
CERTIFICATE OF SERVICE

I, Debra A. Williams, a secretary in the law offices of Rosenman & Colin, do hereby certify that on this 13th day of November, 1992, I have caused to be mailed, or hand-delivered, a copy of the foregoing "COMMENTS OF LAKE BROADCASTING, INC." to the following:

Michael C. Ruger, Chief*
Allocations Branch
Policy and Rules Division
Mass Media Bureau
Federal Communications Commission
2025 M Street, N.W., Room 8322
Washington, D.C. 20554

Ms. Kathleen Scheuerle*
Allocations Branch
Policy and Rules Division
Mass Media Bureau
Federal Communications Commission
2025 M Street, N.W., Room 8314
Washington, D.C. 20554

Frank R. Jazzo, Esq.
Fletcher, Heald & Hildreth
1225 Connecticut Ave., N.W.
Suite 400
Washington, D.C. 20036-2847
COUNSEL FOR THE GREENFIELD GROUP


Debra A. Williams

***BY HAND**